

Application No. 10/038,630
Paper Dated May 24, 2004
Reply to USPTO Correspondence of February 24, 2004
Attorney Docket No. 3675-010819

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A fluid control switch, comprising:
an adapter element configured to be engaged with a switch housing assembly in a fluid control system, the switch housing assembly having a switch orifice surrounded by a switch orifice rim; and

the adapter element further comprising an activation portion in communication with a signal switch, the signal switch creating a data signal when the activation portion is activated, the activation portion and the signal switch arranged within the switch housing assembly such that the activation portion of the adapter element extending extends at least flush with the switch orifice rim of the switch housing assembly, when engaged therewith,

wherein the signal switch further comprises an analog/digital signal converter configured to convert an analog signal, which is at least one of heat and pressure, received from the activation portion of the adapter element, to a digital signal; and

wherein the activation portion creates the data signal through contact without the use of moving parts, such that the activation portion is a non-mechanical activation portion.

2.-3. (Cancelled)

4. (Original) The fluid control switch of claim 1, further comprising a communication line in communication with the signal switch and configured to transmit a data signal emanating from the signal switch to an external control unit.

5. (Original) The fluid control switch of claim 4, wherein the communication line is one of a phone line and a local area network line.

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6. (Original) The fluid control switch of claim 1, further comprising a signal switch medium configured to secure the signal switch adjacent the activation portion of the adapter element.

7. (Original) The fluid control switch of claim 1, wherein the adapter element further comprises an adapter element outer surface having threads disposed thereon, the adapter element threads configured to mate with corresponding threads disposed on switch orifice inner walls.

8. (Original) The fluid control switch of claim 1, wherein the adapter element is a unitary structure.

9. (Original) The fluid control switch of claim 1, wherein the adapter element is manufactured from a material selected from stainless steel and carbon steel.

10. (Original) The fluid control switch of claim 1, wherein the signal switch and the adapter element produces a data signal which, when transmitted to an external control unit, activates a control valve, thereby allowing fluid to flow through a flow valve, and further through a faucet associated with the switch housing assembly.

11. (Currently Amended) A method for retrofitting a fluid control switch to a switch housing assembly having a switch orifice with switch orifice inner walls having threads disposed thereon and surrounded by a switch orifice rim, comprising the steps of:

providing an adapter element having an activation portion in communication with a signal switch that creates a data signal when the activation portion is activated, wherein the signal switch further comprises an analog/digital signal converter configured to convert an analog signal, which is at least one of heat and pressure, received from the activation portion of the adapter element, to a digital signal, and wherein the activation portion creates the data signal through contact without the use of moving parts, such that the activation portion is a non-mechanical activation portion; and

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~~mating the adapter element with the switch orifice arranging the activation portion and the signal switch within the switch housing assembly, such that the activation portion of the adapter element extends at least flush with the switch orifice rim of the switch housing assembly.~~

12. (Original) The method as in claim 11, wherein the adapter element includes an outer surface with threads disposed thereon, and said mating of said adapter element with the switch orifice comprises threading the threads of the adapter element with the threads on the inner walls of the switch orifice.

13. (Original) The method as in claim 11, wherein said mating step comprises:

mating the adapter element with a fitting having an outer surface with threads disposed thereon; and

threading the threads of the fitting with the threads of the switch orifice, such that the activation portion of the adapter element extends at least flush with the switch orifice rim of the switch housing assembly.

14. (Cancelled)

15. (Original) The method of claim 14, further comprising the steps of:
receiving an analog data signal from the activation portion of the adapter element;
and

converting the analog data signal to a digital data signal by the analog/digital signal converter.

16. (Original) The method of claim 15, further comprising the step of:
transmitting the digital data signal to an external control unit via a communication line.

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17. (Original) The method of claim 16, wherein the communication line is one of a phone line and a local area network line.

18. (Original) The method of claim 16, further comprising the steps of:
receiving the digital data signal by the external control unit;
transmitting a data signal to a control valve instructing the control valve to allow fluid to flow through a flow valve; and
allowing fluid flow through the flow valve and further through a faucet associated with the switch housing assembly.

19. (Original) The method of claim 18, further comprising the steps of:
terminating the data signal to the control valve; and
disallowing further fluid through the flow valve and the faucet.

20. (Currently Amended) A kit for a fluid control system, comprising:
a flow valve in fluid communication with a faucet and a control valve;
an external control unit in communication with the control valve; and
a fluid control switch having an adapter element configured to be engaged with a switch housing assembly having a switch orifice surrounded by a switch orifice rim, the adapter element further comprising an activation portion in communication with a signal switch, which creates a data signal when the activation portion is activated, and a communication line in communication with the signal switch and configured to transmit the data signal emanating from the signal switch to the external control unit,

wherein ~~when the adapter element is engaged with the switch housing assembly activation portion and the signal switch are arranged within the switch housing assembly, such that the activation portion of the adapter element extends at least flush with the switch orifice rim of the switch housing assembly;~~

wherein ~~when the signal switch of the adapter element produces a data signal and the data signal is transmitted to the external control unit via the communication line, a second data signal is transmitted to the control valve, activating the control valve, thereby allowing fluid~~
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~~to flow through the flow valve, and further through the faucet associated with the switch housing assembly further comprises an analog/digital signal converter configured to convert an analog signal, which is at least one of heat and pressure, received from the activation portion of the adapter element, to a digital signal;~~

wherein the activation portion creates the data signal through contact without the use of moving parts, such that the activation portion is a non-mechanical activation portion;

wherein when the signal switch of the adapter element produces a data signal and the data signal is transmitted to the external control unit via the communication line, a second data signal is transmitted to the control valve, activating the control valve, thereby allowing fluid to flow through the flow valve, and further through the faucet associated with the switch housing assembly.